

WHAT IS CLAIMED IS:

1. A DNA fragment comprising a base sequence encoding a polypeptide derived from human brain and possessing natriuretic activity.

Subst At 2. The DNA fragment according to Claim 1, wherein said polypeptide has the following amino acid sequence:

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg
Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys
Lys Val Leu Arg Arg His.

3. The DNA fragment according to Claim 1, wherein said polypeptide has the following amino acid sequence:

His Pro Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr
Ser Gly Leu Gln Glu Gln Arg Asn His Leu Gln Gly Lys Leu
Ser Glu Leu Gln Val Glu Gln Thr Ser Leu Glu Pro Leu Gln
Glu Ser Pro Arg Pro Thr Gly Val Trp Lys Ser Arg Glu Val
Ala Thr Glu Gly Ile Arg Gly His Arg Lys Met Val Leu
Tyr Thr Leu Arg Ala Pro Arg Ser Pro Lys Met Val Gln
Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser
Ser Ser Gly Leu

4. The DNA fragment according to Claim 1, wherein said polypeptide has the following amino acid sequence:

Met Asp Pro Gln Thr Ala Pro Ser Arg Ala Leu Leu Leu Leu
Leu Phe Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro
Leu Gly Ser Pro Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly
Leu Gln Glu Gln Arg Asn His Leu Gln Gly Lys Leu Ser Glu
Leu Gln Val Glu Gln Thr Ser Leu Glu Pro Leu Gln Glu Ser
Pro Arg Pro Thr Gly Val Trp Lys Ser Arg Glu Val Ala Thr

A1
contd

Glu Gly Ile Arg Gly His Arg Lys Met Val Leu Tyr Thr Leu
Arg Ala Pro Arg Ser Pro Lys Met Val Gln Gly Ser Gly Cys
Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu
Gly Cys Lys Val Leu Arg Arg His

a *B*

5. The ^{*Recombinant DNA sequence*}~~DNA fragment~~ according to Claim ~~1 or~~ 2 having
the following base sequence:

AGC CCC AAG ATG GTG CAA GGG TCT GGC TGC TTT GGG AGG AAG
ATG GAC CGG ATC AGC TCC TCC AGT GGC CTG GGC TGC AAA GTG
CTG AGG CGG CAT

a *B*

6. The ^{*Recombinant DNA sequence*}~~DNA fragment~~ according to Claim ~~1 or~~ 3 having
the following base sequence:

CAC CCG CTG GGC AGC CCC GGT TCA GCC TCG GAC TTG GAA ACG
TCC GGG TTA CAG GAG CAG CGC AAC CAT TTG CAG GGC AAA CTG
TCG GAG CTG CAG GTG GAG CAG ACA TCC CTG GAG CCC CTC CAG
GAG AGC CCC CGT CCC ACA GGT GTC TGG AAG TCC CGG GAG GTA
GCC ACC GAG GGC ATC CGT GGG CAC CGC AAA ATG GTC CTC TAC
ACC CTG CGG GCA CCA CGA AGC CCC AAG ATG GTG CAA GGG TCT
GGC TGC TTT GGG AGG AAG ATG GAC CGG ATC AGC TCC TCC AGT
GGC CTG GGC TGC AAA GTG CTG AGG CGG CAT

a *B*

7. The ^{*Recombinant DNA sequence*}~~DNA fragment~~ according to Claim ~~1 or~~ 4 having
the following base sequence:

ATG GAT CCC CAG ACA GCA CCT TCC CGG GCG CTC CTG CTC CTG
CTC TTC TTG CAT CTG GCT TTC CTG GGA GGT CGT TCC CAC CCG
CTG GGC AGC CCC GGT TCA GCC TCG GAC TTG GAA ACG TCC GGG
TTA CAG GAG CAG CGC AAC CAT TTG CAG GGC AAA CTG TCG GAG
CTG CAG GTG GAG CAG ACA TCC CTG GAG CCC CTC CAG GAG AGC

CCC CGT CCC ACA GGT GTC TGG AAG TCC CGG GAG GTA GCC ACC
GAG GGC ATC CGT GGG CAC CGC AAA ATG GTC CTC TAC ACC CTG
CGG GCA CCA CGA AGC CCC AAG ATG GTG CAA GGG TCT GGC TGC
TTT GGG AGG AAG ATG GAC CGG ATC AGC TCC TCC AGT GGC CTG
GGC TGC AAA GTG CTG AGG CGG CAT

8. A physiologically active polypeptide represented by formula (I),

X-Cys-Phe-Gly-Arg-Lys-Met-Asp-Arg-Ile-Ser-Ser-Ser-Ser-Gly-
Leu-Gly-Cys-Lys-Val-Leu-Arg-Arg-His-OH (I)

wherein X is H, H-Gly-Ser-Gly-, or H-Ser-Pro-Lys-Met-Val-Gln-Gly-Ser-Gly-.

9. A pharmaceutical composition for curing circulation diseases which comprises as an effective ingredient the physiologically active polypeptide of Claim 8.

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